# SALTON SEA BIOLOGY FOCUSED TECHNICAL GROUP MEETING NOTES

**December 19, 2007** 

University of California, Riverside - Palm Desert Graduate Center Palm Desert, CA

#### **Status of Previous Tasks**

Arturo Delgado (DFG) reviewed tasks identified during the first meeting of the group held on November 14 and discussed the expectations for the meeting. He indicated that the intent of the meeting was to review the overarching goal and objectives of the biological monitoring and to begin to develop, as a group, a list of key questions regarding the biological resources at the Salton Sea that the monitoring plan would be developed to answer. He emphasized the importance of focusing on those questions that directly lead to meeting the goal and objectives of the monitoring plan.

#### **Problem Statement, Goal, and Objectives**

Arturo and David Christophel (CH2M HILL) reviewed the problem statement, overarching goal, and objectives of the biological monitoring. The group provided input on the objectives and suggested revisions to improve comprehensiveness and clarity. Suggestions included:

- Remove the word "baseline" from the first two objectives because of the dynamic nature of the Salton Sea
- Revise the first objective to capture variability in addition to trends
- Emphasize the importance of the fourth objective by moving it to the top
- Include an objective about evaluating and standardizing data collection methods and techniques
- Emphasize that integration among resource groups is an important component of this process and clarify the objective that addresses integration.
- Acknowledge that to determine "trend" it is important to consider not only future data, but also past and present data where available.

In addition to these suggestions, the group discussed the importance of a transparent process for developing the monitoring plan, the need to emphasize hypothesis testing where appropriate, and comparability of collected data with previous efforts at the

Salton Sea and elsewhere. The South-Bay Salt Ponds and the MSCP for the Lower Colorado River were cited as good examples of data collection processes

### **Constraints and Assumptions**

Arturo and David reviewed the list of constraints and assumptions that was developed to help provide guidance on the direction of the biological monitoring. They clarified that the purpose of the list was to provide preliminary sideboards, most of which were from the PEIR, that would be helpful in focusing the discussion. The group discussed these constraints and asked specific questions about how the terms "habitat value" and Salton Sea "footprint" were defined. There also was a suggestion to expand the list to include legal/policy constraints that would allow for a clear prioritization of those issues.

### **Conceptual Models**

Doug Barnum (USGS) presented draft conceptual models of the Salton Sea ecosystem and food web and provided a brief overview of their development. He indicated that these would serve as the starting point for refining our understanding of how the system works and as a means for prioritizing monitoring activities and ultimately focused investigations. He also outlined the steps that would be needed to complete model development and to integrate the biology with models being developed by other work groups. The steps include:

- Discuss and refine the model at the next Biology FTG meeting;
- Once updated, integrate with other models being developed in other resource groups; and
- Identify new models needed to capture other cycles.

## **Key Questions**

David introduced the preliminary list of key questions that was distributed to the group and indicated that the list was a starting point for expanding the questions for each of the biological resource groups (e.g., birds, fish, and invertebrates). These questions will serve as the basis for developing the biological monitoring plan. The group worked through each taxonomic group and modified some of the questions from the preliminary list and added others. These questions were captured and added to the list during the meeting.

Discussion related to the key questions included suggestions to include a vector control agency representative in the group, a synthesis of disease information to identify data gaps, and coordination with other existing monitoring networks to better understand the range-wide population status.

## **Next Steps**

- Update the objectives, constraints/assumptions, and key questions documents
- Circulate updated documents to Biology FTG for review and additional input prior to next meeting
- Schedule next meeting

## Attendees

Name	Affiliation	E-mail
Delgado, Arturo	DFG	adelgado@dfg.ca.gov
Crayon,Jack	DFG	jcrayon@dfg.ca.gov
Gibson, Steve	DFG	sgibson@dfg.ca.gov
Keeney, Sharon	DFG	skeeney@dfg.ca.gov
Weightman, Craig	DFG	cweightman@dfg.ca.gov
Boles, Jerry	DWR	bolesj@water.ca.gov
Keene, Charles	DWR	chuckk@water.ca.gov
Kie, Marti	DWR	mkie@water.ca.gov
Nguyen, Vic	DWR	tnguyen@water.ca.gov
Barnum, Doug	USGS	doug_barnum@usgs.gov
Christophel, David	CH2M Hill	dchristo@ch2m.com
Ohlendorf, Harry	CH2M Hill	hohlendo@ch2m.com
Swartz, Monica	Coachella Valley Water District	mswartz@cvwd.org
Molina, Kathy	Natural History Museum of LA Co.	kmolina@nhm.org
Walker, Mike	Reclamation	mwalker@lc.usbr.gov
Barrows, Cameron	UCR/CCB	cbarrows@ucr.edu
Corcoran, Robin	USFWS	robin_corcoran@fws.gov
Thompson, Andrew	USFWS	andrew_thompson@fws.gov
Schoneman, Chris	USFWS	christian_schoneman@fws.gov
Anderson, Tom	USGS	tanderson@usgs.gov
Saiki, Mike	USGS	michael_saiki@usgs.gov
Tiffany, Mary Ann	San Diego State	mtiffany@sunstroke.sdsu.edu
Warnock, Nils	PRBO	nwarnock@prbo.org